Ejercicio17sec2.2grossman2ed.

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hallar el determinante de la matriz dada.

$$A = \begin{vmatrix} 2 & -1 & 0 & 4 & 1 \\ 3 & 1 & -1 & 2 & 0 \\ 3 & 2 & -2 & 5 & 1 \\ 0 & 0 & 4 & -1 & 6 \\ 3 & 2 & 1 & -1 & 1 \end{vmatrix}$$

```
----------------------------------------------------------------------
| Sage Version 3.4, Release Date: 2009-03-11                         |
| Type notebook() for the GUI, and license() for information.        |
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Sage Version 3.4, Release Date: 2009-03-11
```

```
sage] A=matrix(QQ,[[2,-1,0,4,1],[3,1,-1,2,0],[3,2,-2,5,1],[0,0,4,-1,6],[3,2,1,-
    1,1]])
sage] A
```

$$\begin{pmatrix} 2 & -1 & 0 & 4 & 1 \\ 3 & 1 & -1 & 2 & 0 \\ 3 & 2 & -2 & 5 & 1 \\ 0 & 0 & 4 & -1 & 6 \\ 3 & 2 & 1 & -1 & 1 \end{pmatrix}$$

```
sage] A.determinant()
```

138

```
sage]
```

el determinante de la matriz dada es 138.